

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application.

1. (Currently Amended) A method of forming a porous film comprising:
applying a film-forming composition containing a polysiloxane, a pore-forming agent, an onium salt, and a solvent onto a substrate,
evaporating said solvent from said film-forming composition in a first heat treatment,
promoting polymerization of said polysiloxane in an inert-gas atmosphere in a second heat treatment, and
vaporizing said pore-forming agent in an oxidizing-gas ambient in a third heat treatment at a temperature that is lower than the temperature of the polymerization-promoting second heat treatment.

2. (Previously Presented) The method of forming a porous film according to claim 1, including evaporating the solvent in the first heat-treatment in an inert-gas atmosphere at a temperature not exceeding 350°C.

3. (Previously Presented) The method of forming a porous film according to claim 1, including promoting polymerization in the second heat-treatment at a temperature not exceeding 400°C.

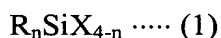
4. (Previously Presented) The method of forming a porous film according to claim 1, including promoting polymerization in the second heat-treatment at a temperature not exceeding 350°C.

Claim 5 (Cancelled).

6. (Previously Presented) The method of forming a porous film according to claim 1, wherein said oxidizing-gas ambient includes oxygen.

7. (Previously Presented) The method of forming a porous film according to claim 6, wherein said oxygen contains one of ozone and oxygen radicals.

8. (Previously Presented) The method of forming a porous film according to claim 1, wherein said polysiloxane is a hydrolytic condensation product of a compound represented by the general formula (1):



wherein R represents a hydrogen atom or an organic group having from 1 to 20 carbon atoms, X represents hydrolysable groups which may be the same as or different from each other, and n represents an integer from 0 to 2, with the proviso that when n is 2, R may be the same or different moieties.

9. (Previously Presented) The method of forming a porous film according to claim 8, wherein the weight-average molecular weight of said polysiloxane ranges from 300 to 20,000.

10. (Previously Presented) The method of forming a porous film according to claim 1, wherein said pore-forming agent is a polymer having an alkylene-oxide structure with a weight-average molecular weight of from 200 to 10,000.

11. (Previously Presented) The method of forming a porous film according to claim 1, wherein said onium salt is an ammonium salt.

12. (Previously Presented) The method of forming a porous film according to claim 1, wherein said solvent is selected from the group consisting of an alkylene glycol dialkyl ether and a dialkylene glycol dialkyl ether.

13. (Previously Presented) The method of forming a porous film according to claim 1, wherein said substrate is a semiconductor substrate.